

Optically Variable Devices with Encrypted Embedded Data for Authentication of Identification Documents

Abstract of the Disclosure

5 Systems and methods are disclosed for providing security to an identification document having at least one storage element capable of storing information. An encryption key is provided, the encryption key comprising a public key and a private key. An optically variable device (OVD) in a machine readable format is created, the OVD associated with the public key. A payload of data is generated for storage in the storage element. At least a portion of the payload of data is encrypted with the private key, and the encrypted payload of data is transmitted to at least one location on the identification document. At least a portion of the data payload can be based on data that is randomly selected from data stored in the storage element or that is encrypted from data that is stored in the storage element.. The storage element can comprise an optically variable 10 device (OVD), optical storage media, hologram, KINEGRAM, Exelgram, Pixelgram, three dimensional bar code, a two dimensional bar code, a magnetic stripe, and a chip. Transmitting the encrypted payload can comprise at least one of embedding, digitally 15 watermarking, printing, and encoding encrypted data in at least one location on the identification document.